

NEW APPLICATION



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BEFORE THE ARIZONA CORPORATION COMMISSION

SEP 30 12:02

COMMISSIONERS

KRISTEN K. MAYES, Chairman  
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ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION OF )  
NAVOPACHE ELECTRIC COOPERATIVE, INC. )  
FOR APPROVAL OF RENEWABLE ENERGY )  
STANDARD PLAN AND TARIFFS )

DOCKET NO. E-01787A-09-

E-01787A-09-0469

Navopache Electric Cooperative, Inc. ("NEC") is hereby filing its Renewable Energy Standard ("RES") Plan in compliance with RES Rule R-14-1814(A). NEC is hereby also filing its tariff pages for the Renewable Energy Standard ("RES") Tariff in compliance with the RES Rule R-14-1808(A). NEC also submits a worksheet that contains the information required by RES Rule R-14-1808(B)(2) through R-14-1808(B)(4). Finally, NEC will waive the 30 day time provisions referenced in A.R.S. Section 40-367 and 40-250, (B), for processing the RES Tariff.

Please send correspondence related to this Application to:

Dennis W. Hughes  
Chief Operating Officer  
Navopache Electric Cooperative, Inc.  
1878 West White Mountain Boulevard  
Lakeside, AZ 85929

Arizona Corporation Commission  
DOCKETED

SEP 30 2009

DOCKETED BY

nr

1 RESPECTFULLY SUBMITTED this 30<sup>th</sup> day of September, 2009.

2  
3 By 

4 John Wallace  
5 Grand Canyon State Electric Cooperative Assn. Inc.

6 **Original** and thirteen (13) copies filed this  
30<sup>th</sup> day of September, 2009, with:

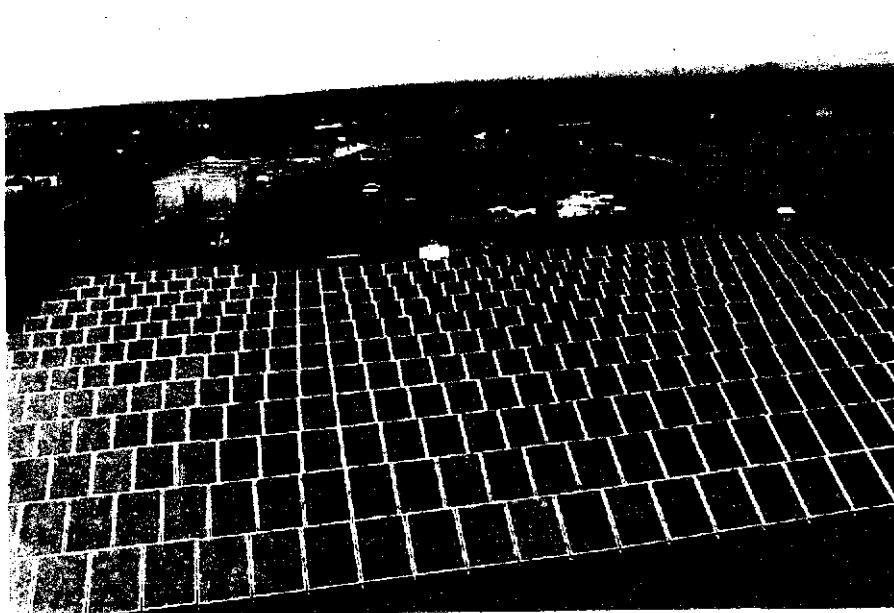
7 Docket Control  
8 Arizona Corporation Commission  
9 1200 W. Washington  
Phoenix, AZ 85007



NAVOPACHE ELECTRIC COOPERATIVE

# NEC

NAVOPACHE ELECTRIC COOPERATIVE



114KW Grid Connected Photovoltaic Array  
NEC Area Office – Springerville, AZ

*October 1, 2009*

**Navopache Electric Cooperative  
2010 REST Plan**

**Dennis W. Hughes  
Chief Operating Officer  
Navopache Electric Cooperative, Inc.  
1878 West White Mountain Boulevard  
Lakeside, AZ 85929  
1-800-543-6324**

**[www.navopache.org](http://www.navopache.org)**

## TABLE OF CONTENTS

I.	BACKGROUND.....	Page 1
II.	NEC 2010 REST PLAN.....	Pages 2-7
III.	EXHIBITS.....	Pages 8-14
IV.	RENEWABLE ENERGY INCENTIVE PROGRAM.....	Pages 15-19
V.	REST FUNDING FROM SURCHARGE.....	Page 20
VI.	REST TARIFFS.....	Page 21-23
VII.	FIVE YEAR BUDGET.....	Page 24-25

**NAVOPACHE ELECTRIC COOPERATIVE, INC.  
RENEWABLE ENERGY STANDARD and TARIFF FOR 2010  
(REST IMPLEMENTATION PLAN)**

**I. BACKGROUND**

Navopache Electric Cooperative, Inc. ("NEC") is a rural electric transmission and distribution cooperative headquartered in Lakeside, Arizona. NEC provides electric service to over 40,000 members in its 10,000 square mile service territory covering east-central Arizona and west-central New Mexico. NEC owns and operates 263 miles of 69kv transmission lines, 3,200 miles of 14.4 / 24.9kv distribution lines, and employs 117 full time employees. NEC is an "all-requirements" wholesale power customer of the Public Service Company of New Mexico ("PNM"). In 2008, NEC delivered 434 gigawatt hours in retail sales to its membership.

The Arizona Corporation Commission ("ACC") approved the Renewable Energy Standard and Tariff Rules ("REST Rules") in Decision No. 69127 dated November 14, 2006. Following Attorney General Certification, The REST Rules took affect on August 14, 2007. The REST Rules require affected utilities to derive certain percentages of the total energy that they sell at retail from eligible renewable energy resources.

The REST Rules contain a section that specifically addresses electric power cooperatives. R14-2-1814 instructs the cooperatives to file "an appropriate plan for acquiring renewable energy credits for eligible renewable energy resources for the next calendar year." The provisions of this section of the REST Rules substitute for the requirement of R14-2-1804 and R14-2-1805 for NEC.

NEC owns and operates renewable energy resources, has secured renewable energy credit purchase agreements and has implemented a renewable energy incentive program to help the cooperative reach its renewable energy goals under the REST Rules.

*Navopache Electric Cooperative, Inc.*

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## II. NEC 2010 REST PLAN

### Existing Infrastructure – Utility Owned Photovoltaic Resources

NEC will use a combination of utility owned photovoltaic installations, renewable energy credit purchase agreements and distributed generation facilities installed by its membership to achieve the 2010 REST goals.

Since 2003, NEC has installed four separate photovoltaic arrays totaling 270 kilowatts. Two of the installations are grid-connected at primary voltage on the NEC distribution system; two are distributed generation facilities, connected at secondary voltages to serve existing load on property secured by easements from the NEC member.

### REC Purchase Agreements

NEC has four executed agreements in place to purchase RECs from other providers. They include an agreement to purchase RECs from Abengoa Solar, Inc., of Lakewood, Colorado. This agreement has been in place since 2006. Abengoa owns and operates a solar thermal system at the Federal Correctional Facility north of Phoenix, AZ. NEC purchases RECs from Abengoa at a cost of \$ 0.06 / kWh.

NEC has an executed agreement with PDM Solar, Inc., of Wausau, Wisconsin. PDM Solar proposes to install a "solar space cooling" system at a manufacturing facility in Phoenix, AZ. NEC intends to purchase REC's from PDM Solar upon completion of the installation of its system for \$ 0.07 / kWh.

NEC has an executed agreement with Solar Utilities Network, LLC, (SUN) of San Rafael, California. SUN proposes to build a 2.0 megawatt photovoltaic array near the Sunrise Ski Resort located on the Fort Apache Indian Reservation. The agreement calls for NEC to purchase RECs from SUN at a cost of \$0.15 / kWh.

NEC has a Memorandum of Understanding (MOU) with SOLID USA, Inc., of Phoenix, AZ. SOLID proposes to build a solar thermal system at the Arizona Correctional Facility located in Apache County, between the communities of St. Johns and Springerville, AZ. The MOU calls for NEC to

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purchase RECs from SOLID at a cost to be determined once the go-ahead for construction is granted by the State Department of Corrections. Both parties agree that the cost of RECs from this facility will be in line with the cost of RECs from other solar thermal installations located in Arizona.

All of the REC purchase agreements that NEC has in place are provided in the "EXHIBITS" section of this REST Plan, including the annual quantities of renewable energy resources to be produced and the incremental cost of each REC.

#### **Distributed Renewable Energy Resources**

NEC has 14 member-installed renewable energy systems connected to its power system, as per the Distributed Renewable Energy requirement of the REST Rules. All of these members have been provided an incentive payment as stipulated in the NEC Renewable Energy Incentive Plan (REIP). The NEC REIP was approved by the ACC as a component of the NEC REST Plan in Decision No. 70305 of April 2008.

The NEC member-installed systems include photovoltaic systems, solar thermal systems, and wind turbines. The annual quantities of renewable energy these systems produce and the incremental cost of the associated RECs are included in the "EXHIBITS" section of this REST Plan.

As per Decision No. 70305, the NEC REIP is included in this REST Plan submittal. NEC seeks approval to make two changes in its REIP: To allow off-grid renewable energy systems to qualify for the NEC REIP and to exempt "solar thermal systems" from the limitation in the NEC REIP of only one renewable energy system incentive per service entrance. These changes are detailed in the REIP section of this submittal.

#### **Future Renewable Energy Resources**

NEC has been approached by two major wind energy providers seeking to construct and operate

*Navopache Electric Cooperative, Inc.*

wind turbine facilities within the NEC service territory. These providers have proven track records and after numerous meetings with each of them, NEC is convinced that they are serious about seeing their projects become reality. The National Renewable Energy Laboratory (NREL) Arizona 50 meter wind power map identifies a viable wind resource in southern Apache County within the NEC service territory, and in close proximity to the NEC transmission system.

The NEC engineering department is evaluating our transmission system to determine the magnitude of upgrades that would be required to accommodate these renewable resources. The providers have stated that they understand that projects of this size will require infrastructure upgrades and additions to the NEC transmission system to market the renewable energy produced. NEC has made it clear that the financial resources needed to complete such upgrades will be a responsibility that they will have to bear in order to locate their projects in the NEC service territory. They have asked for confidentiality until the engineering analysis and financial requirements for these projects are known.

#### **Geothermal Generating Station Project**

NEC has completed a feasibility study which recommends that a 5 megawatt Enhanced Geothermal System (EGS) generating station is feasible on both a technical and economic basis in the NEC service territory. The Final Report completed by Black & Veatch Corporation of Walnut Creek, California, and GeothermEx, Inc., of Richmond, California, was submitted to the ACC as a requirement of Decision No. 70699 dated 1/20/09.

Since receiving the positive recommendation, NEC has entered into negotiations with a private land owner to secure a long-term lease agreement over 40 acres near the community of Nutrioso, AZ. NEC is actively pursuing funding opportunities through the Department of Energy (DOE) to drill additional exploratory wells as the feasibility study recommends. NEC will be making a presentation to the DOE at the Geothermal Resources Council Annual Meeting to be held in Reno, NV, the first week in October 2009. NEC is hopeful that it will qualify for DOE funds which are earmarked for EGS development.

NEC fully intends to develop this resource unless factors which are not presently known surface

*Navopache Electric Cooperative, Inc.*

to indicate that it is not in our member's best interest. NEC is interested in this project as a competitively priced base load power supply and as a high capacity factor renewable energy resource. A 5 megawatt geothermal generation facility would produce around 40 million kWh's of renewable energy annually. NEC will keep the ACC informed on the progress of this project as we continue to search for funding to move forward.

*Navopache Electric Cooperative, Inc.*

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## **Navopache and Mohave Electric Cooperatives**

# **Enhanced Geothermal Systems (EGS) Evaluation**

### **FINAL REPORT**

B&V Project Number 161412.0010

**April 2009**

### **JOINTLY PERFORMED BY:**



**BLACK & VEATCH**  
Building a *world* of difference.

Black & Veatch Corporation  
2999 Oak Road, #490  
Walnut Creek, CA 94529  
Tel: (913) 458-2000 [www.bv.com](http://www.bv.com)

**GeothermEx, Inc.**

3260 BLUME DRIVE, SUITE 220  
RICHMOND, CALIFORNIA 94806

*Navopache Electric Cooperative, Inc.*

EGS has some potential advantages over other technologies which makes its consideration promising. It is much less location constrained than conventional geothermal since the primary requirement for EGS is the presence of a useful temperature. Unlike conventional geothermal, EGS is broadly applicable to many areas in the United States and could become a prominent renewable energy technology once developed and proven on a large scale. There will likely be Department of Energy (DOE) funding opportunities at the exploration stage to further EGS development and show it is possible. Finally, the resource is base load and can more reliably meet the demand needs of the utility.

### 3.4 Conclusions and Recommendations

The conclusion of this study by Black & Veatch and GeothermEx is that EGS is a viable option within the Navopache and Mohave service territories on a technical and economic basis. Both service territories contain moderate to good geothermal resource with heat flow rates that are similar to other successful EGS pilot projects. The technical feasibility of an EGS facility at these temperatures has recently been demonstrated in a recent project in Germany. Although EGS is not the lowest cost renewable energy technology, it may be one of the better long-term options due to its potentially competitive cost at a small scale, base load generation profile and siting flexibility.

If the decision is made to pursue an EGS or a conventional geothermal project, the recommended next steps are to further evaluate specific sites for factors such as land availability, water availability, environmental and cultural issues, and technical potential. It would then be recommended that Navopache and Mohave partner with a small to medium size geothermal developer and jointly fund the higher risk exploration stage of a project. The partnership should engage the DOE to play a role in risk mitigation by providing funding assistance at this exploration stage.

**"The conclusion of this study by Black & Veatch and GeothermEx is that EGS is a viable option within the Navopache and Mohave service territories on a technical and economic basis."**

**III. EXHIBITS**



# Renewable Energy Resources - 2010

Resource	Type	Size - kW	Annual Output In kWh	Energy Cost / kWh
NEC St. Johns Substation	Photovoltaic - Utility - Grid Connected	94	220,711	\$ 0.225 / kWh
NEC Springerville Area Office	Photovoltaic - Utility - Grid Connected	114	249,715	\$ 0.225 / kWh
Blue Ridge High School	PV - Non-Residential Distributed Generation	50	144,376	\$ 0.225 / kWh
Mountain Meadow Recreation Complex	PV - Non-Residential Distributed Generation	20	43,800	\$ 0.225 / kWh
NEC Member Installations	PV / Wind Turbine - Residential Distributed Generation	129	282,510	\$ 0.09 / kWh*
NEC Member Installations	Solar Water Heating	n/a	5,217	\$ 0.09 / kWh*
Abengoa Solar Corporation	Solar Thermal System	700	1,533,000	\$ 0.06 / kWh
PDM Solar, Inc.	Solar Space Cooling	500	1,500,000	\$ 0.07 / kWh
SUN - Solar Utilities Network	Photovoltaic - Grid Connected	2,000	4,380,000	\$ 0.15 / kWh
SOLID Solar, USA	Solar Thermal System	700	1,533,000	\$ 0.06 / kWh
<b>TOTAL RESOURCES AVAILABLE</b>		<b>4,307</b>	<b>9,892,329</b>	

\* Cost / kWh is based upon a Net Metering Tariff and does not include the cost of renewable energy installation incentives provided by NEC.

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**Proposal to Purchase EPS Credits:  
Agreement between Industrial Solar Technology Corporation and  
Navopache Electric Cooperative, Inc.**

This agreement dated Nov. 6<sup>th</sup>, 2006 is between Industrial Solar Technology Corporation (IST), 4420 McIntyre Street, Golden, CO and Navopache Electric Cooperative, Inc. (Navopache) P. O. Box 308, Lakeside, Arizona 85929.

IST is the owner/operator of a solar thermal system at the Federal Correctional Institution (FCI) in Phoenix, Arizona that displaces electricity used for water heating. The solar system was installed in 1999; hence, it is eligible for the application of an early installation credit of 0.5. Thirty percent (30%) of the installed solar system was from Arizona content materials. Such content generates an extra credit multiplier of  $0.5 \times 0.3 = 0.15$ . Hence, the total extra credit multiplier is 0.65.

IST invoices FCI on a monthly basis for the displaced value of electricity in the manner shown in the attached invoice. The amount of electricity displaced is measured using duplicate meters. Measurement procedures and billings were approved at the onset of the project by the National Renewable Energy Laboratory. The electricity displaced is net of heat losses in distribution piping and electricity used to produce the hot water.

IST wishes to sell all the Renewable Energy Credits (REC) generated from the FCI solar system to Navopache to assist Navopache in meeting its portfolio requirements under the Arizona Corporation Commission's Environmental Portfolio Standard adopted in Decision Nos. 63364 and 63486. The proposed price of the "raw" credits without the application of the extra credit multiplier is \$0.06/kWh of displaced electricity. It is proposed to sell the credits generated during 2006 and for five years thereafter through December 31, 2011. After that time, the Agreement is renewable by mutual consent for a mutually agreed upon time frame.

Through October 31, 2006, the solar system has generated 478,696 kWh of REC. The total number of REC generated through December 31, 2006 is estimated at 570,000 kWh. On an annual basis, the REC generated will range from 800,000 to 1,100,000 kWh based on weather conditions and circumstances at the site. However, IST can make no guarantees regarding the actual number of REC generated.

Both parties agree that if the Arizona Corporation Commission eliminates the Environmental Portfolio Surcharge, (EPS), being levied by affected utilities, or modifies the EPS funding mechanism to the degree that NEC cannot meet its obligations under this Purchase Proposal solely from these funds, NEC may terminate this agreement with 60 days written notice without penalty or further obligation to IST.

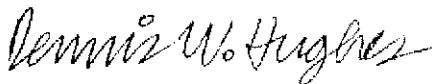
Within 10 days of the end of each calendar quarter, IST proposes to deliver a "Certificate of Transfer of EPS Credits" such as that shown for REC through October 31, 2006 for payment by Navopache on a net 30 basis.

Signed:



E. Kenneth May  
President  
Industrial Solar Technology Corporation  
Date: 11/6/06

Signed:



Dennis W. Hughes  
Manager of Energy Services  
Navopache Electric Cooperative, Inc.  
Date: 11/2/06

*Navopache Electric Cooperative, Inc.*

Mailing Address:

PDM SOLAR, INC.  
P.O. Box 36  
Wausau, WI 54402-0036  
(715) 574-4920



Physical Address:

PDM SOLAR, INC.  
100 N. 72<sup>nd</sup> Ave.  
Wausau, WI 54401

Agreement to Purchase Renewable Energy Credits  
Agreement between PDM Solar, Inc. and Navopache Electric Cooperative, Inc.

This agreement dated, May 22, 2008 is between PDM Solar, Inc. (PDM), 100 North 72<sup>nd</sup> Avenue, Wausau WI and Navopache Electric Cooperative (NEC) 1878 W. White Mountain Boulevard, Lakeside, Arizona 85929.

PDM Solar, Inc. is developing "Distributed Renewable Energy Resources" at various sites within the State of Arizona. These sites will be located at a customer's premise and will displace "Conventional Energy Resources" that would otherwise be used to provide electricity to Arizona customers. Specifically these "Distributed Renewable Energy Resources" will be either "Solar Space Cooling", "Solar Space Heating", or Solar HVAC. PDM Solar will build these systems to comply with the Distributed Renewable Energy Resource guidelines established by the Arizona Corporation Commission (ACC) in R14-2-1802 (B)(9) and R14-2-1802 (B)(10).

These systems will generate distributed Renewable Energy Credits (RECs) per R14-2-1803 which can be used to satisfy the Distributed Renewable Energy Requirements established in R14-2-1805. The number of credits generated will be determined according to the methodology established in R14-2-1803 (B). One REC will be created for each 3,415 British Thermal Units of heat produced by the solar collectors for use to drive a "refrigeration machine" absent the generation of electricity or to provide space heating. The amount of heat produced will be measured using calibrated flow and temperature measurements in the supply and return loops between the solar collectors and the "refrigeration machine" or space heating system.

Per R14-2-1803 (C), PDM agrees to supply and NEC agrees to purchase RECs generated by PDM's systems to assist NEC in meeting their portfolio requirements established in R14-2-1805. PDM agrees to supply and NEC agrees to purchase 1,500,000 RECs in 2009 and 5,000,000 RECs per year for the following 5 years (2010-2014). The price will be \$0.07 per REC. After that time, the Agreement is renewable by mutual consent for an additional 5 years, at a price to be determined at the time of renewal. In the event that the ACC amends the existing REST requirements to the extent that the RECs purchased by NEC from PDM exceed any future requirement, NEC reserves the right to transfer said RECs to a third party.

Within 10 days of the end of each calendar quarter, PDM will deliver a "Certificate of Transfer of RECs" and an invoice for the credits generated during that quarter. NEC will provide payment of the invoice on a net 30 basis.

Signed:

A handwritten signature in black ink, appearing to read "David M. Baker".

David M. Baker  
President/CEO  
PDM Solar, Inc.  
Date: 5/27/08

Signed:

A handwritten signature in black ink, appearing to read "Dennis W. Hughes".

Dennis W. Hughes  
Chief Operating Officer  
Navopache Electric Cooperative, Inc.  
Date: 5/22/08

*Navopache Electric Cooperative, Inc.*

**Agreement for the Purchase of Renewable Energy Credits  
Between Navopache Electric Cooperative, Inc., and  
Solar Utilities Network, LLC**

This agreement, dated, June 17<sup>th</sup>, 2009, is between Solar Utilities Network, LLC, a California limited liability company (SUN), 4340 Redwood Hwy Suite 241, San Rafael, California, 94903, and Navopache Electric Cooperative, Inc., an Arizona corporation (NEC), 1878 West White Mountain Blvd., Lakeside, Arizona 85929.

Recitals

- (a) SUN is in negotiations with the White Mountain Apache Tribe, Whiteriver, Arizona, (White Mountain) for the development of a 2.0 Megawatt Photovoltaic (PV) Array (Solar Facility), more or less, proposed upon construction to be connected to the NEC power system from lands owned by White Mountain near the Sunrise Ski Resort, and this agreement is subject to the later approval of White Mountain, as well as other prospective projects along the NEC network.
- (b) SUN, as the prospective agent for White Mountain, effective from and after completion of the construction of the proposed Solar Facility, if and when completed by SUN with White Mountain as proposed, wishes to pre-arrange for the sale of Renewable Energy Credits (RECs) generated from the Solar Facility to NEC in meeting its requirements under the Arizona Corporation Commission (ACC) Renewable Energy Standard and Tariff rules, Arizona Administrative Code (AAC) R 14-2-1801 through 1815, adopted November 14, 2006, in Decision Number 69127.

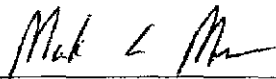
WHEREFORE, in consideration of their mutual promises and forbearances provided for herein, and other good and valuable consideration, the adequacy and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. NEC will pay for the RECs in a sum equal to \$0.15 / kWh commencing from and after the final construction of the White Mountain Solar Facility as proposed or another such facility along with the NEC network for a period of ten years from the date of this agreement. After that time, the Agreement is renewable by mutual consent for a mutually agreed upon time frame and at a price to be determined at the time of renewal. In the event that the ACC amends the existing REST requirements to the extent that the RECs purchased by NEC from SUN exceed any future requirement, NEC reserves the right to transfer said RECs to a third party. This agreement becomes null and void if SUN does not develop the renewable energy resource that it proposes to develop due to any circumstances not known at this time.

*Navopache Electric Cooperative, Inc.*

2. Within 10 days of the end of each calendar quarter, SUN will provide an invoice for the RECs generated during that quarter. NEC will provide payment of the invoice on a net 30 basis. Upon payment or within five (5) days, SUN will deliver a "Certificate of Transfer of RECs" to NEC.

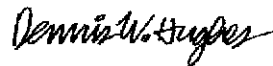
Signed:



Mark Moore, President, CEO  
Solar Utilities Network, LLC,  
A California limited liability company

Date: 6-17-2009

Signed:



Dennis W. Hughes, COO  
Navopache Electric Cooperative, Inc.,  
An Arizona corporation

Date: 6-17-09

*Navopache Electric Cooperative, Inc.*

(12)

### Memorandum of Understanding

To: Dennis Hughes  
Navapache Electric Cooperative  
1878 W White Mtn. Blvd  
Lakeside, AZ 85929

From: H. John Elfers  
S.O.L.I.D. USA, Inc.  
10645 N. Tatum Blvd.  
Suite 200-306  
Phoenix, AZ 85028

Date: 8/5/2009

---

Dear Dennis:

As a result of our discussions to date and a study of the information that you have furnished to us, it appears that it would be beneficial to both parties to consider an agreement for S.O.L.I.D. USA, Inc. (SOLID) to work with Navapache Electric Coop ("NEC") along the following lines:

- i. Navapache Electric Coop (NEC) is the supplier of electricity to the Apache State Prison, in Springerville, Arizona. SOLID is a leading designer and builder of solar thermal energy systems in the Southwest United States.
- ii. It is the intent of NEC and SOLID to jointly develop, design, and build a solar thermal water system that would be augmented with a back up electrical water heating system to replace the propane water heating system currently in use at the Apache Prison.
- iii. The system would be located on a one half to one acre outside the prison fence, on county owned land. The NEC/SOLID joint venture would seek to obtain the necessary lease from the County.
- iv. The project, which would not require state funds, would be privately financed. The state of Arizona would pay for the delivered hot water through a power purchase agreement. The rate would be based on discount from the prevailing cost of propane at that location, measured in Btu's.
- v. In order to proceed with the design of the system, NEC and SOLID we would acquire written confirmation from the State Department of Corrections, that it would be willing to enter into contract negotiations with NEC/SOLID based on the above-described concept.

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*Navapache Electric Cooperative, Inc.*

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- vi. Once that confirmation is received, NEC and SOLID will begin the system design and developing the financing model for the installation of the system.
- vii. You understand that the final Agreement will contain standard covenants, indemnities, conditions, and warranties required by SOLID.
- viii. Both SOLID and NEC agree that any nondisclosure or other confidentiality agreements signed by both parties continue in full force.
- ix. This Memorandum of Understanding, unless explicitly stated otherwise, is not intended as a contract and is not binding, but merely as a Statement of present intentions and understandings of the parties. The transaction will be binding upon the parties only in accordance with the terms contained in the final Agreement and if, as, and when such an Agreement has been executed by SOLID and NEC.

If the foregoing understanding is agreeable to you, and you are prepared to accept it, would you please so indicate on the copy of this memorandum in the space provided, and return the same to the undersigned as soon as you can conveniently do so.

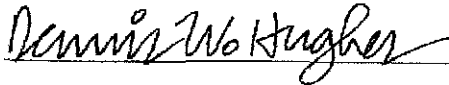
Very truly yours,

S.O.L.I.D. USA, Inc.

By 

CEO

Accepted this 5<sup>th</sup> day of August, 2009.



Navapache Electric Coop

#### **IV. RENEWABLE ENERGY INCENTIVE PROGRAM**



## RENEWABLE ENERGY INCENTIVE PROGRAM

With the Renewable Energy Incentive Program, NEC will pay its members \$ 3 / watt (installed nameplate capacity) of an acceptable renewable energy technology\* such as a photovoltaic array or a wind turbine, up to 50% of the installed cost. The maximum amount of a payment incentive will be \$ 25,000 and only one incentive payment per service entrance\*\* will be allowed.

(1) You select and have installed a qualifying solar electric system, wind turbine, or other renewable energy technology at your home or business. This home or business must be served by NEC. Furthermore, your system must meet all qualifications listed in the following "Qualifications" section.

(2) You must use a licensed contractor to install the system and the installation must meet IEEE standards, the National Electric Code, as well as the NEC Interconnection standards. The contractor must also certify the systems installed nameplate capacity in watts. The incentive amount that you receive is dependent on the installed nameplate capacity in watts.

(3) You sign an agreement assigning rights to the associated environmental credits to NEC.

(4) All kWh hours generated by your renewable energy system and delivered back to the NEC distribution system will be purchased at the rates established under a Net Metering tariff to be approved by the Arizona Corporation Commission.

(5) You, the owner of the renewable energy system, are responsible for payment of normal system repairs and maintenance to the unit, including labor.

(6) In order to receive the rebate, you must submit the following to NEC:

- Certification from a NEC representative that the installed unit meets the qualifications as set out in the Incentive Program Systems Qualifications page.
- Proof of code inspection by the NEC representative and of the system's installed nameplate capacity in watts certified by a licensed contractor. Failure to pass a code inspection and have a licensed contractor perform the installation and certify the system's output will result in refusal of the rebate.
- A signed Renewable Energy Incentive Program Enrollment Form.

(7) Once the documentation is submitted, please allow 30 days for your rebate to be processed. In the event that demand for non-residential funds exceeds a period allocation, NEC may provide reservations to those projects above the allocation depending on the current REST compliance status and availability of funding. In the event that funds collected for use in the Distributed Energy incentive program are not fully subscribed in a program year, those funds will be applied towards the next program year. The funds will be allocated to achieve the required energy outcome between residential and non-residential projects.

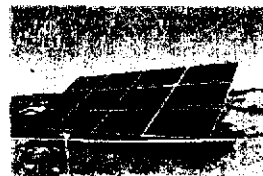
(8) A more in-depth interconnection standards requirement is contained in this packet.

Documents should be submitted to:  
Navopache Electric Cooperative, Inc.  
Renewable Energy Incentive Program  
1878 W. White Mountain Blvd.  
Lakeside, Arizona 85929

\* Those renewable energy technologies which qualify for inclusion in the Arizona Corporation Commission Renewable Energy Standard & Tariff.

\*\* A service entrance is the electric meter location and associated wiring on the member's premises.

\*\*\* "Net Metering" refers to a system which deducts energy produced by a system and delivered to the grid from the energy purchased from the grid.



## RENEWABLE ENERGY INCENTIVE PROGRAM

### ENROLLMENT FORM

By signing below, I am assigning my rights to the associated environmental credits to NEC. I further agree that any excess generation which flows back through to the NEC distribution system will be purchased by NEC at the rates to be established under a Net Metering tariff to be approved by the Arizona Corporation Commission.

I understand that as the owner of the equipment, I am fully responsible for the unit's operation and safety. I will pay for normal system maintenance and repairs to the unit, including labor.

I also agree to allow NEC to inspect my unit after installation to ensure it meets requirements set forth in the Renewable Energy Incentive Program Systems Qualifications documentation. I agree that NEC is not in any way responsible for the unit, its safety, operation, insurance or repair.

I, \_\_\_\_\_ (Print Name), hereby certify that I have read and reviewed the Renewable Energy Incentive Program Systems Qualifications. I understand that I am solely responsible for ensuring that these qualifications are met and maintained for the life of my electric generating system and I am responsible for any consequences if they are not met. I understand they are needed for safe operation of my and NEC's electrical system. I also understand that if they are not met, I am not eligible for any rebate from NEC.

DATE \_\_\_\_\_ SIGNATURE(S) \_\_\_\_\_

#### PLEASE PRINT:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

Account Number: \_\_\_\_\_

Service Location: \_\_\_\_\_

Description of Renewable Energy Resource: \_\_\_\_\_

Projected Cost: \_\_\_\_\_

Signature(s): \_\_\_\_\_

Date: \_\_\_\_\_

Processing of the rebate is contingent on the accurate certification/testing of the unit. Rebate processing may take up to 30 days. NEC reserves the right to refuse payment of a rebate based on the following reasons, including but not limited to: failure to meet the qualifications set forth in the Renewable Energy Incentive Program Systems Qualifications documentation, incomplete enrollment packets, insufficient system testing or certification, installation and/or testing/certification by an unlicensed electrician.

*Navopache Electric Cooperative, Inc.*



### **RENEWABLE ENERGY INCENTIVE PROGRAM**

#### **INCENTIVE PROGRAM SYSTEM QUALIFICATIONS**

**All member-owned renewable energy system components must meet the following system and installation requirements to be connected to the NEC electric distribution system:**

1. The system components must be certified as meeting the requirements of IEEE-929 – Recommended Practice for Utility Interface of Photovoltaic Systems.
2. The system components must be certified as meeting the requirements of UL – 1741 – Power Conditioning Units for use in Residential Photovoltaic Power and be covered by a non-prorated manufacturer's warranty of at least two years.
3. The system design and installation must meet all requirements of the latest edition of the National Electric Code (NEC), including Article 690 and all grounding, conductor, raceway, over-current protection, disconnect and labeling requirements.
4. The system and installation must meet the requirements of all federal, state and local building codes and have been successfully inspected by the building official having jurisdiction. To do so, the installation must be completed in accordance with the requirements of the latest edition of the NEC in effect in the jurisdiction where the installation is being completed, including, without limitation, Sections 200-6, 210-6, 230-70, 240-3, 250-26, 250-50, 250-122, all of Article 690 pertaining to photovoltaic systems, thereof, all as amended and superceded.
5. A wind turbine system must be certified as meeting the requirements of UL – 1741 – Standard for Safety for Inverters, Converters, Controllers, and Interconnection System Equipment for Use With Distributed Energy Resources, 1<sup>st</sup> Edition; IEEE 1547 – 2003; CAN/CSA-G22.2 No 107.1-01, 3<sup>rd</sup> Edition.
6. The system must meet NEC Interconnection requirements for self-generation equipment.
7. An AC disconnect means shall be provided on all ungrounded AC conductors and shall consist of a lockable gang-operated disconnect clearly indicating open or closed. The switch shall be visually inspected to determine that the switch is open. The switch shall be clearly labeled stating "Renewable Energy System AC Disconnect."
8. All system installations must be completed in a professional, workman-like and safe manner.
9. All system installations must be completed by a licensed electrical contractor. **NO EXCEPTIONS.**

*Navopache Electric Cooperative, Inc.*



## **RENEWABLE ENERGY INCENTIVE PROGRAM**

### **OPERATION OF RENEWABLE ENERGY SYSTEM, SALE OF PROPERTY & MEMBER'S REFUND OBLIGATION**

Your participation in the NEC Renewable Energy Incentive Program assumes that you will operate your system continuously for a period of ten (10) years after you receive the incentive payment from NEC. If you fail to do so, then you will be considered to be out of compliance with the program requirements and NEC will be entitled to take certain actions described below.

You are required to notify NEC within five (5) business days after your system is either removed from your property or is no longer operational. NEC will consider this notification as the removal date. If you fail to maintain and operate your system for at least one year after the date you receive the incentive payment, liquidated damages may apply. In such event, you will be required to reimburse us the total amount of the incentive payment in certified funds no later than five (5) business days after your receipt of our request that you refund the incentive payment to NEC. If the removal date occurs after the first year but before the end of the tenth year, we reserve the right to request a pro-rated refund of the incentive payment. If your removal date occurs in Year 2, you would refund to NEC 80% of the incentive payment, Year 3, 70%, in Year 4, 60% and so on.

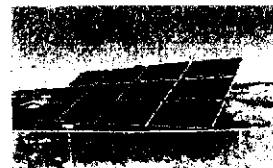
NEC may waive the foregoing reimbursement obligation or any other instance of your noncompliance if it is determined that the renewable energy system is not operational due to equipment malfunction or other disrepair that is not attributable to you, and, you are actively and reasonably making diligent, good faith efforts to repair the renewable energy system and return it to operation.

When NEC receives your reimbursement payment this incentive agreement will be deemed terminated and neither NEC nor you will have any further obligation to each other, but resolution of our respective obligations and rights will continue to be determined by this agreement until our relationship with each other is finally and completely resolved.

There are certain important conditions to consider if you sell your property where the renewable energy system is installed.

- You are required to notify NEC in writing promptly in the event that you intend to sell your property.
- If you sell your property within one (1) year after we pay you the incentive payment and your buyer does not continue to operate and maintain the renewable energy system you will be required to reimburse NEC the total amount of the incentive payment.
- If you sell your property more than one (1) year after you receive the incentive payment, you must make arrangements to have your buyer agree to these terms and conditions whereby your buyer will continue to operate the renewable energy system.

*Navopache Electric Cooperative, Inc.*



## RENEWABLE ENERGY INCENTIVE PROGRAM -- *Rebate Program*

With the Renewable Energy Incentive Program, NEC will pay its members \$ 3 / watt (installed nameplate capacity) of an acceptable renewable energy technology\* such as a photovoltaic array or a wind turbine, up to 50% of the installed cost. The maximum amount of a payment incentive will be \$ 25,000 and only one incentive payment per service entrance\*\* will be allowed. *Solar Water Heating and Solar Wind Turbine Incentive Programs* are also available. *See NEC website for details and requirements.* NEC will pay a rebate equal to 3.0% of the estimated energy saved during the system's first year of operation to members with US-300 ratings of the Solar Rating and Certification Corporation.

(1) You select and have installed a qualifying solar electric system, wind turbine, or other renewable energy technology at your home or business. This home or business must be served by NEC. *NEC will pay \$ 3 / watt (installed nameplate capacity) of the acceptable renewable technology, up to 50% of the installed cost with a maximum incentive payment of \$ 25,000. Furthermore, your system must meet all qualifications listed in the following "Qualifications" section.*

(2) You must use a licensed contractor to install the system and the installation must meet IEEE standards, the National Electric Code, as well as the NEC Interconnection standards. The contractor must also certify the systems installed nameplate capacity in watts. *The incentive amount that you receive is dependent on the installed nameplate capacity in watts.*

(3) You sign an agreement assigning rights to the associated environmental credits to NEC.

(4) All kWh hours generated by your renewable energy system and delivered back to the NEC distribution system will be purchased at the rates established under a Net Metering tariff to be approved by the Arizona Corporation Commission.

(5) You, the owner of the renewable energy system, are responsible for payment of normal system repairs and maintenance to the unit, including labor.

(6) In order to receive the rebate, you must submit the following to NEC:

- Certification from a NEC representative that the installed unit meets the qualifications as set out in the Incentive Program Systems Qualifications page.
- Proof of code inspection by the NEC representative and of the system's installed nameplate capacity in watts certified by a licensed contractor. Failure to pass a code inspection and have a licensed contractor perform the installation and certify the system's output will result in refusal of the rebate.
- A signed Renewable Energy Incentive Program Enrollment Form.

(7) Once the documentation is submitted, please allow 30 days for your rebate to be processed. In the event that demand for non-residential funds exceeds a period allocation, NEC may provide reservations to those projects above the allocation depending on the current REST compliance status and availability of funding. In the event that funds collected for use in the Distributed Energy incentive program are not fully subscribed in a program year, those funds will be applied towards the next program year. The funds will be allocated to achieve the required energy outcome between residential and non-residential projects.

(8) A more in-depth interconnection standards requirement is contained in this packet.

Documents should be submitted to:  
Navopache Electric Cooperative, Inc.  
Renewable Energy Incentive Program  
1878 W. White Mountain Blvd.  
Lakeside, Arizona 85929

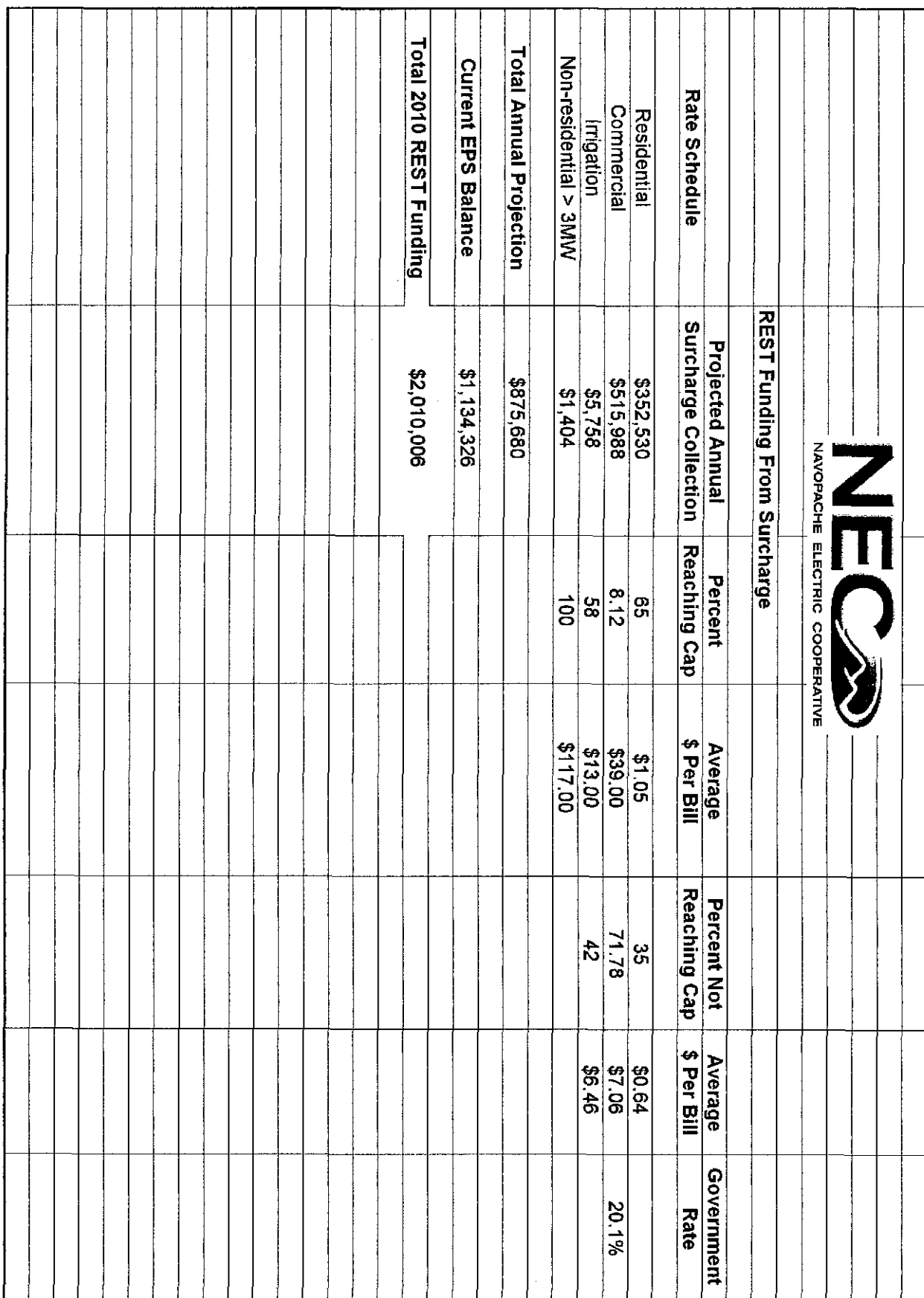
\* Those renewable energy technologies which qualify for inclusion in the Arizona Corporation Commission Renewable Energy Standard & Tariff.

\*\* A service entrance is the electric meter location and associated wiring on the member's premises.

\*\*\* "Net Metering" refers to a system which deducts energy produced by a system and delivered to the grid from the energy purchased from the grid.

Navopache Electric Cooperative, Inc.

**VI. REST FUNDING FROM SURCHARGE**



**VI. REST TARIFFS**

NAVOPACHE ELECTRIC COOPERATIVE, INC.  
Lakeside, Arizona

RENEWABLE ENERGY STANDARD TARIFF

SCHEDULE NO. 9

Effective: July 1, 2008

Renewable Energy Standard (RES) Surcharge

On all bills for governmental and agricultural customers with multiple meters, an RES Surcharge mandated by the Arizona Corporation Commission will be assessed monthly at the lesser of \$ 0.000875 per kilowatt-hour of retail electricity purchased by the consumer, or:

Governmental and Agricultural Customers: \$ 13 per service;

Governmental and Agricultural Customers whose metered demand is 3,000 kW or more for 3 consecutive months: \$ 39.00 per service.

In the case of unmetered services, the Load-Serving Entity shall, for the purposes of billing the RES Surcharge and subject to the caps set forth above, use the lesser of (i) the load profile or otherwise estimated kWh required to provide the service in question; or (ii) the service's contract kWh.

On all bills in all other tariff service categories than those listed above, an RES Surcharge mandated by the Arizona Corporation Commission will be assessed monthly at the lesser of \$ 0.004988 per kilowatt-hour of retail electricity purchased by the customer, or:

Residential Customers: \$ 1.05 per service;

Non-Residential Customers: \$ 39.00 per service;

Non-Residential Customers whose metered demand is 3,000 kW or more for 3 consecutive months: \$ 117.00 per service.

In the case of unmetered services, the Load-Serving Entity shall, for purposes of billing the RES Surcharge and subject to the caps set forth above, use the lesser of (i) the load profile or otherwise estimated kWh required to provide the service in question; or (ii) the service's contract kWh.

The RES Surcharge is in addition to all other rates and charges applicable to service to the customer.

*Navopache Electric Cooperative, Inc.*

NAVOPACHE ELECTRIC COOPERATIVE, INC.  
Lakeside, Arizona  
STANDARD OFFER TARIFF  
VOLUNTARY RENEWABLE ENERGY PROGRAM  
SCHEDULE NO. 10

Effective: For electrical usage beginning on January 1, 2008 and billed beginning with the February 1, 2008 cycle billings.

Availability

Available as an option to all residential and non-residential standard offer members of the Cooperative to participate in the cooperative's renewable energy program. Not applicable for resale, breakdown, standby or auxiliary service.

Type of Service

Available to all classes of members, regardless of service entrance size or installed infrastructure located at the member's residence or place of business.

Monthly Rate

\$ 2.00 per month for each block of 50 kWh of electric generation from renewable resources. Members electing this option may purchase one or more blocks. The rate is in addition to the otherwise applicable charges for all kWh consumed under standard offer service provided by the Cooperative.

Term

Members of the Cooperative may enroll at any time, effective at the beginning of the next billing month. Members may terminate their participation at any time by notifying the Cooperative; termination is effective at the end of the current billing month. Terminations made in conjunction with termination of all service from the Cooperative are effective at the time of such termination.

Conditions

All funds collected under this Schedule will be used solely to construct, operate, and maintain renewable energy projects carried out by the Cooperative in Arizona, including solar electric generating projects. Electric energy generated by renewable resources is blended with other energy throughout the Cooperative's distribution system. Energy delivered to members electing this option will consist of such blended energy.

Tax Adjustment

The applicable sales tax in Arizona will be added to bills where required. The cooperative is authorized to pass on to the consumers the applicable proportionate part of any taxes or government impositions, which are or may in the future be assessed on the basis of the gross revenues of the cooperative.

Terms of Payment

Billing made under this schedule will be due and payable upon receipt and past due fifteen (15) days from the date the bill is mailed. Service will be subject to disconnect in accordance with the cooperative's collection policy.

*Navopache Electric Cooperative, Inc.*

NAVOPACHE ELECTRIC COOPERATIVE, INC.  
Lakeside, Arizona

RENEWABLE ENERGY CUSTOMER SELF-DIRECTED TARIFF

SCHEDULE NO. 11

Effective: January 1, 2008

Renewable Energy Standard ("RES") Customer Self-Directed Option

Application

The RES Customer Self-Directed Option is applicable to single and three phase service for Non-Residential Customers with multiple meters that pay more than \$ 25,000 annually in RES Surcharge funds pursuant to the Renewable Energy Standard Tariff for any number of related accounts or services within the Cooperative's service territory.

Eligible Customer

An Eligible Customer may apply to the Cooperative to receive funds to install Distributed Renewable Energy Resources. An Eligible Customer seeking to participate in this program shall submit to the Cooperative a written application that describes the Renewable Energy Resources that it proposes to install and the projected cost of the project. An Eligible Customer shall provide at least half of the funding necessary to complete the project described in its application.

An Eligible Customer shall enter into a contract with the Cooperative that specifies, at a minimum, the following information: the type of *Distributed Generation* ("DG") resource, its total estimated cost, kWh output, its completion date, the expected life of the DG system, a schedule of Eligible Customer expenditures and invoices for the DG system, Cooperative payments to an Eligible Customer for the DG system, and the amount of a Security Bond or Letter of Credit necessary to ensure the future operation of the Eligible Customers' DG system, metering equipment, maintenance, insurance, and related costs.

If proposed to be connected to the Cooperative's electrical system, an Eligible Customer's DG resource shall meet all of the Cooperative's DG interconnection requirements and guidelines before being connected to the Cooperative's electrical system.

All Renewable Energy Credits derived from the project, including generation and extra credit multipliers, shall be applied to satisfy the Cooperative's Annual Renewable Energy Requirement.

The funds annually received by an Eligible Customer pursuant to this tariff may not exceed the amount annually paid by the Eligible Customer pursuant to the RES Surcharge Tariff.

**VII. FIVE YEAR BUDGET**



	2010	2011	2012	2013	2014
<b>Wind Generator</b>					
Installed KW			1,000	1,000	1,000
KWh Obtained			2,628,000	2,628,000	2,628,000
<b>Photovoltaic Generation - Utility Owned</b>					
Cost / kWh	\$0.225	\$0.225	\$0.225	\$0.225	\$0.225
Total Cost / Year	\$136,984	\$235,534	\$235,534	\$235,534	\$235,534
<b>Distributed Renewable Energy</b>					
Cost / kWh	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09
Total Cost / Year	\$25,425	\$49,275	\$68,965	\$88,695	\$108,405
<b>Purchase Power Agreements</b>					
<b>Abengoa</b>					
Cost / kWh	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Total Cost / Year	\$91,980	\$91,980	\$91,980	\$91,980	\$91,980
<b>PDM</b>					
Cost / kWh	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07
Total Cost / Year	\$70,000	\$70,000	\$350,000	\$350,000	\$350,000
<b>SUN</b>					
Cost / kWh	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15
Total Cost / Year	\$657,000.00	\$657,000.00	\$657,000	\$657,000	\$657,000
<b>SOLID</b>					
Cost / kWh	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Total Cost / Year	\$91,980	\$91,980	\$91,980	\$91,980	\$91,980